

Co-production of knowledge in transdisciplinary communities of practice: Experiences from food governance in South Africa

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Abstract

Communities of Practice are sites of social learning for the co-production of knowledge. Building on recent literature on Transdisciplinary Communities of Practice, this article reflects on the experiences of an emergent 'Food Governance Community of Practice' in South Africa that brings together multiple stakeholders to co-produce knowledge to inform local food policy and governance. Our results show the following lessons for managers and participants engaged in establishing similar 'third spaces' for knowledge co-production: 1) make inevitable power asymmetries explicit; 2) the identity of the group should not be built on a particular normative position but emerge from discursive processes and 3) create a balance between supporting peripheral learning and maintaining the specialist cutting edge discussions needed for co-production. Furthermore, the most beneficial legacy of a Community of Practice may not be the outputs in terms of the co-produced knowledge but the development of a cohesive group of stakeholders with a new shared way of knowing.

Keywords: co-production of knowledge; science–policy interface; community of practice; transdisciplinary research; food governance; South Africa

1. Introduction

Over the last two decades, the co-production of knowledge by researchers and stakeholders has become the 'gold standard' for engaged science (Lemos et al. 2018). For complex cross-cutting and wicked policy problems, such as food security, there may not be one clear 'correct' solution. For these types of problems, it is argued that we need to move beyond

scientifically reliable knowledge towards knowledge that is also socially robust through the democratisation of expertise (Nowotny 2003). As the co-production of knowledge becomes more embedded in research practices and norms, there has been an increasing focus on how to facilitate the integration of different knowledges. Some authors have pointed out the value of theories of social learning to understand knowledge production in transdisciplinary research and have employed the concept of ‘Communities of Practice’ (COP) to better understand and operationalise the process of knowledge integration (Cundill et al. 2015; Regeer and Bunders 2003; Vincent et al. 2018).

COPs have been recognised as powerful sites of social learning where practitioners share and generate knowledge through conversations, network-building and joint activities (Wenger 2009b). The concept of COPs is constantly evolving (Sethi 2017). While COPs were originally conceived as intra-organisational learning structures, Cundill et al. (2015) argue for broadening our understanding of COPs to recognise two types: intradisciplinary COPs consist of people within a single discipline and are in-keeping with the traditional definition; transdisciplinary COPs (TCOPs), on the other hand, can span several organisations and disciplines bringing together groups of people with very different expertise, experience and expectations. It is in the latter type of COP that the co-production of knowledge for complex or ‘wicked’ policy problems is most likely to occur (Cundill et al. 2015). However, broadening of the definition of COPs to explicitly include members from diverse backgrounds has some implications for social learning and the co-production of knowledge that need to be further explored.

This article builds on recent literature on COPs charting experiences of co-producing knowledge for addressing complex policy problems (e.g. Cundill et al. 2015; Vincent et al. 2018). By further reflecting on the practical application of the concept of TCOPs, we hope to better understand the dynamics surrounding social learning for transdisciplinary research and the co-production of knowledge, as well as help to further refine this new conceptual development in the COP literature. The article focuses on the experiences of the authors attempting to establish and nurture a local ‘Food Governance COP’ (FGCOP) in South Africa. Multi-stakeholder forums are increasingly promoted in the emerging field of food governance in recognition of the diverse number of sectors and actors that impact on food (Termeer et al. 2018). The FGCOP brings together academics from several local universities, government officials from a range of departments in two levels of government, civil society organisations (CSOs), nutritionists, farmers, and labour representatives to discuss various issues relating to the governance of food at the local level (municipality and province). We begin the article by setting out some of the literature on COPs and situating it within the literature of transdisciplinary research and co-production of knowledge. The origins and functioning of the FGCOP are then briefly outlined. This is followed by the empirical results, gathered through participant observation and in-depth interviews, which illustrate some important lessons with regard to fostering social learning and the co-production of knowledge. In our conclusions, we reflect on our key findings in terms of their potential contribution to the governance of complex cross-cutting issues.

2. COP as sites of social learning and the co-production of knowledge

2.1 ‘Third spaces’ for transdisciplinary research and knowledge co-production

Transdisciplinary research marks a significant departure from conventional research in that it involves collaboration amongst scientists from different disciplines as well as non-academic

stakeholders (i.e. government officials, civil society, business, practitioners) to address complex societal problems (Hirsch Hadorn et al. 2006; Lang et al. 2012; Mobjörk 2010; Roux et al. 2017). A key aim of transdisciplinary research is to bring together and integrate diverse knowledges and perspectives to co-produce knowledge that is concurrently grounded in practice and science (Roux et al. 2017). Transdisciplinary research can also be characterised as iterative, reflexive and transformative: rather than an ‘objective’ investigation of the world, the dialogic processes needed to incorporate multiple views and knowledges makes researchers and other stakeholders more aware of their own and others’ positions. At the same time, the co-evolution of understanding and alignment of purpose tends to make novel framings and transformational change a real possibility (Pennington et al. 2013). At the very core of all of these features of transdisciplinary research ‘is the expectation that people from a variety of backgrounds and interests will learn together through collaborative problem solving and innovation’ (Cundill et al. 2015).

The burgeoning literature on co-production of research is therefore closely related to that of transdisciplinary science. Here, knowledge production is understood as a collaborative endeavour between academic and non-academic actors which results in the ‘simultaneous production of knowledge and social order’ (Guston 2001: 401). The appeal of the co-production of knowledge is underpinned by its promise to increase the relevance and usability of this knowledge for society (Lemos and Morehouse 2005), as well as moral arguments of democratising expertise to realise cognitive justice (Oswald 2016). The process of co-production of knowledge is conceptualised as taking place at the intersection of the realms of science and non-science—the agora—a ‘public space’ in which ‘science meets the public’, and in which the ‘public speaks back to science’ (Nowotny et al. 2001: 247). Here, the traditional roles of science and non-science actors become blurred and academic actors find their role changes from providing technical information to much more diffuse activity of ‘assisting in the process of governance’ (Funtowicz et al. 2000: 335). In this way, the ‘agora’ becomes a site of primary knowledge production in its own right through which people enter the research process and where knowledge is embodied in people, processes and projects: ‘If we all are experts now, the order and ordering of the regime of pluralistic expertise will be played out and negotiated in this public space’ (Nowotny 2003: 155).

While the interrelated concepts of transdisciplinary science and co-production of knowledge are appealing, many challenges remain in how to implement these in practice. Roux et al. (2017: 720) build on Ray Oldenburg’s (1989) work to argue that an important aspect of ‘how to learn [together]’ is creating a ‘third space’: ‘a social environment...that provides a neutral ground for engagement, conversation and community building, and for establishing feelings of a sense of place’ (Oldenburg 1989). Roux et al. (2017: 720) continue that in ‘a transdisciplinary sense, a third place represents a learning space at the interface between academia and practice, where academics and non-academics can have an equal voice when they engage to find common ground regarding particular social–ecological issues’. Cundill et al. (2015) point out that the concept of COPs can potentially help us understand (and order) these sites of knowledge co-production where stakeholders from inside and outside science come together with the goal of learning about a particular issue of concern.

2.2. COP

COPs can be defined as ‘groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis’ (Wenger et al. 2002: 4). Three characteristics help COPs to

become dynamic learning environments and distinguish them from other groups or networks (Wenger 2009a): first, a COP is organised around a shared *domain* of interest and also shared expertise in that domain. A COP is therefore not merely a club of friends or a network of connections between people. Membership implies a commitment to the domain and a shared competence that distinguishes members from other people (Wenger 2009a). Secondly, COP members engage in joint activities, interacting with each other and sharing information with an objective of improved mutual understanding and empowerment. During this process, relationships are built that enable members to learn from each other. This process develops a *community* of people that care about the domain. Thirdly, COP members are practitioners and not merely spectators. They actively test ideas, usually through developing a shared repertoire of communal resources, for example stories, language, tools and ways to address recurring problems—in short a shared *practice* for the community in order to be more effective in their domain (Wenger 2009a). In this sense, COPs are not only potential sites for the co-production of knowledge but also for collaborative practice.

The focus of Etienne Lave and Jean Wenger's original study was on situated learning through social participation rather than in the classroom (Lave and Wenger 1991). They studied apprenticeship as a learning model. This revealed a complex set of social relationships through which apprentices learnt, not only from their masters but also other more advanced apprentices (Wenger 2009a: 3). The wide appeal of the concept of COPs, however, meant that it was quickly taken up and applied to understand (and promote) learning in organisations, business, government, international development and the Internet (Wenger et al. 2002). COPs therefore shifted from being a purely analytical concept (giving a name to a phenomenon that already existed) to also become an instrumental concept (used with the intention to create and cultivate) (Wenger 2009b). This led to a wealth of articles aimed to guide the reader on how to cultivate, nurture or steward a COP (McDermott 2004; Cambridge et al. 2005; Probst and Borzillo 2008; De La Rue 2008).

For some authors, this 'design intention' causes the concept of COPs to lose the very insights that made it useful (Vann and Bowker 2001) so that the concept is becoming diluted and heterogeneous over time as various disconnected groups use it to suit their needs (Hughes 2007). While in the traditional sense therefore COPs are informal, emergent, and self-organising with no common goal other than knowledge creation (Cundill et al. 2015), the contemporary literature on COPs shows that COPs take many forms, including open or closed membership, voluntary or compulsory participation as well as different modalities of working (Bailey 2017). Crucially, despite the huge literature on principles for nurturing COPs (including from the original founders of the [analytical] concept [e.g. Wenger 2000 and Wenger et al. 2002]), a question remains on whether they can be 'artificially' initiated and/or supported in their generation. Vincent et al. (2018) and Cundill et al. (2015) argue that while it may be possible to create the conditions for COPs to form by providing space for 'rich discussions and opportunities for collaboration', it is not possible to create a COP from the outside.

2.3 COP as sites of social learning

There are also questions on whether looser learning models, such as networks, could be more useful for understanding social learning. Wenger (2009b: 10) argues that critiques of the COP concept contend that there is 'too much emphasis on community for an adequate account of learning in a web-enabled globalizing world'. Networks seem more adapted to a world where learning needs and connections are becoming increasingly fluid. Crucially, however, Wenger

(2009b: 10) goes on to argue that he does not regard networks and communities as separate structures:

Rather than contrasting a community here and a network there, I think it is more useful to think of community and network as two types of structuring processes. Community emphasizes identity and network emphasizes connectivity. The two usually coexist...Network and community processes have complementary strengths and weaknesses; they are two avenues for enhancing the learning capability of a group.

In this way 'a community of practice does not primarily refer to a "group" of people, rather it refers to a social process of negotiating competence in a domain over time' (Valerie Farnsworth 2016). This social learning process can be structured by either community or network processes to enhance and shape its learning capacities.

Social learning has been defined as 'a change in understanding that goes beyond the individual to become situated within wider social units or COP through social interactions between actors within social networks' that offer spaces for collective deliberation and problematisation of issues (Reed et al. 2010: 1). When Lave and Wenger (1991) developed the original concept of COPs, it was as a way to understand how professional communities and work teams (often within a single organisation) induct and train new members to perpetuate set routines for accomplishing specific tasks. The emphasis was on groups of people who come together within a single discipline to learn how to do it better (Wenger 1998). COPs are, however, a particularly appropriate structural model for cross-organisation and cross-sector collaboration because they are inherently boundary-crossing entities (Snyder and de Souza Briggs 2003: 7). In contrast to traditional intradisciplinary COPs, therefore, transdisciplinary COPs are comprised of individuals who may come from different disciplines, sectors and social and training backgrounds but are drawn together by a shared interest in and basic commitment to solving complex socio-economic and ecological problems (Cundill et al. 2015). The heterogeneity of TCOPs makes them well suited to facilitate more transformative learning where exposure to new arguments and perspectives, as well as deliberation, can lead to gradual shifts in position, values and beliefs. It is also in these types of transdisciplinary learning spaces that the integration of different knowledges can take place.

In line with the insights outlined above, in this article, we view COPs as simultaneously an analytical concept (of existing phenomena), a practice (embodied by design principles) and a 'third space' where the process of social learning (through which the integration of different types of knowledge) takes place. This site of social learning can be shaped by community or networking processes over time. TCOPs are seen as spanning multiple sectors, organisations, and disciplines to create social learning spaces for the integration of different types of knowledge to co-construct socially robust knowledge for practical application. The literature on TCOPs is, however, still relatively new and there remain many ambiguities about the specific characteristics of TCOPs compared to intra-disciplinary COPs and in particular how these play out in terms of social learning and knowledge co-production. These ambiguities need to be explored if we are to better understand and nurture TCOPs and harness their utility for addressing societies' wicked problems. The empirical section of this article explores three of these ambiguities between intradisciplinary and transdisciplinary COPs, in the fields of power, identity and knowledge by reflecting on how they have played out in our experience of establishing and nurturing a transdisciplinary social learning space in South Africa.

3. Case background and methods

3.1 The Western Cape food governance community of practice

The FGCOP in the Western Cape developed from a series of stakeholder workshops organised by local academics in 2017 to discuss research ‘needs’ for local food governance. The suggestion to loosely institutionalise these meetings within the framework of a COP came from a government official within the meetings and was taken up by the authors of this article who took on the role of COP secretariat.¹

The shared understanding of the domain of the FGCoP was developed jointly by the members over two early ‘formative’ FGCOP meetings in November 2017 and March 2018. The common issue or ‘problem’ that brought the members together was their shared concern over the persistently high levels of food insecurity in the province (and the country). The parameters of the domain was also informed by a system framing of complex nature of the issue, which recognised opportunities for governance innovation across multiple domains spanning production, processing, distribution, and retail, and also multiple actors from different social sectors, including state, private sector, civil society, and academia. At the same time, there was an assumption that there was potentially more ‘room for manoeuvre’ to shape the food system in the Western Cape than at the national level. The early FGCOP members also articulated a set of values that should shape the activities of the group such as ‘justice’, ‘inclusivity’ and ‘asserting socio-economic rights’. These building blocks of the FGCOP formulated in the initial meetings were recorded in a short document ‘CoP Design Principles’. Potential topics for discussion were also raised in these early meetings and subsequently a loose programme drafted by a core group of academics and government officials. This core group was eventually joined by representatives of CSOs and formalised into a ‘reference group’ as the FGCOP matured, which helped steer the direction and activities of the group. Over time, topics for discussion in future meetings were also jointly generated by the FGCOP members during meetings.

The members of the FGCOP were initially the participants in the original (pre-CoP) workshops in 2017 but new members joined (at first on the invitation of the secretariat or other FGCOP members) and others dropped out over time. The number of people that participated in each meeting was intended to be relatively modest (around thirty-five) to facilitate face-to-face dialogue. The number of overall FGCOP members was higher as not all FGCOP members participated in every meeting. Half day meetings took place roughly four times a year² and were based on a programme of themes which were progressively identified by the COP members (e.g. informal food trade, food sensitive spatial planning, legal mandate of local government). Meetings included presentations and group work, and time was reserved for housekeeping and reflection on the COP as a process. The meetings were events embedded in ongoing activities of the secretariat, which included documenting meetings, reflecting on key insights, managing contact databases for dissemination of invitations, conceptualising future themes, identifying and recruiting prospective panellists and invitees, and interviews with individual stakeholders. Thus, the dense interactions and knowledge exchanges that took place in the COP gatherings were entwined with a more diffuse and continual process of knowledge co-production throughout the network of relationships.

3.2 Methods

In this article, we draw on the empirical experiences gained by establishing and managing the FGCOP from November 2017 to May 2020. The account is based on three sources of evidence: First, participant observation by the authors who formed the secretariat of the COP for this time period. Secondly, semi-structured interviews with fifteen COP members were undertaken by the authors between December 2019 and February 2020 in Cape Town, South Africa. Thirdly, documentation of thirteen COP gatherings held during the period of November 2017 to May 2020.

4. Lessons from the Western Cape food governance community of practice

Our practical experience of the FGCOP highlights a number of lessons for individuals participating in, managing, or funding multi-stakeholder platforms for the co-production of knowledge. These lessons are to: 1) make explicit and mitigate power asymmetries amongst TCOP members; 2) recognise the additional challenge of building a sense of identity in TCOPs; and 3) consider whose learning will be prioritised.

4.1 Lesson 1: Make explicit and mitigate power asymmetries

While COP theory did not initially place much emphasis on issues of conflict or power in its analysis of the learning process (Caillard no date; Fox 2000; Wenger 2009a), in his later work Wenger (2009b: 9) admits that ‘the concept of community of practice yields an inherently “political” view of learning, where power and learning are always intertwined and indeed inseparable’. Learning is therefore steered partly through the agency of the members of a community (Fox 2000). The co-production literature explains that power, in this context, refers to having the ability and the resources to negotiate and adapt interests during the learning process (Pohl et al. 2010). The challenge is to prevent the process from being ‘high-jacked’ by particular groups of stakeholders and to rather make sure that no social actors are privileged over what other disciplines and social actors contribute (Dewulf et al. 2005). However, there is rarely a neat fit between the interests and perspectives of all those involved in the process of knowledge co-construction, which will often be messy and contested (Oswald 2016). Since transdisciplinary COPs contain members from different disciplines and backgrounds with potentially widely varying perspectives and experiences, power dynamics can significantly impact on social learning and knowledge co-production processes in these types of COPs (Cundill et al. 2015).

In our experiences of the FGCOP, we found that asymmetries in power need to be actively identified and mitigated. In the meetings of the FGCOP, academic and government voices were strongest initially (Interviews 3, 10, 6). This was perhaps not surprising considering the initiative to establish a COP had come from individuals from within these two sectors. This power expressed itself through the food system framing of the approach, and consequently in the identification of themes and selection of invitees. The dominance of academic and government voices, and the adoption of the abstract food systems framing contributed to making the learning space ‘quite overwhelming’ for certain stakeholders such as small farmers (Interview 10). The language used in the meetings (and even prior to the meetings in the invitation) was a barrier to these stakeholders as well as other more tangible impediments such as getting transport to the meeting venues and losing a day of work and income (Interview 10)—something which was partly managed through transport refunds from the FGCOP budget.

The secretariat also played a gatekeeper role by initially keeping control of who was invited to the FGCOP meetings. For example, only a few urban farmers were invited to the first few FGCOP meetings so as not to unduly skew (in the eyes of the secretariat) the conversation towards a narrow perspective on food security with excessive emphasis on its (agricultural) supply side. Consequently, grassroots voices were largely absent at the beginning of the FGCOP (Interview 5). This led to a rather theoretical framing of the food governance problem (Interview 3) and to an initial emphasis on bridging the science–policy interface in the FGCOP through matching knowledge users (in government) with knowledge producers (in academia). The FGCOP secretariat also faced difficulties to bring in the private sector, with the exception of informal trader associations and one small food company representative. An exceptional high degree of corporatisation and concentration of the agri-food sector in South Africa results in huge asymmetries of power between the actors and perhaps helps explain the difficulty of engagement with the larger companies, especially considering the underlying shared understanding by other FGCOP members that the current food system (dominated by these large players) is fundamentally flawed.

Over time, however, the FGCOP became more inclusive as more CSOs and practitioners were invited both through word of mouth from other COP members but also recognition by the secretariat that these civil society voices were an important part of the conversation. By the end of 2019, the FGCOP meetings were open invitation gatherings. The lack of strong CSO voices came up in the first FGCOP meetings as a challenge to food governance in South Africa. It was felt that such a strong campaigning presence was needed to push food governance up the political agenda in a similar way the Treatment Action Campaign highlighted the need for freely available anti-retroviral medication in South Africa in the 1990s. The topics of the meetings was widened to include the interests of CSOs (e.g. a specific meeting focused on the role of CSOs in food governance and a parallel meeting was set up to map CSOs active, directly or indirectly, in the food space). The format of the meetings evolved from mainly expert talks and plenaries to include group work and feedback to allow quieter voices to be heard in a wider engagement (interviews 10 and 11). CSOs and practitioners consequently started to play a much more central role in the FGCOP meetings asking ‘what does this mean for us, and what are the practical challenges for us?’ (Interview 3).

The wider inclusion of multiple voices did not, however, mean that power asymmetries were levelled completely so that everyone present felt able to speak freely. Intradisciplinary COPs are portrayed in the literature as ‘safe spaces’ where practitioners can build relationships based on trust, respect and reciprocity in order to share and generate knowledge through conversations and network-building (Cambridge et al. 2005; Roberts 2015). However, in our experiences of the FGCOP, a number of CSO and practitioners retained a sense of inhibition during the meetings regarding some of the other FGCOP members with suspicion (interviews 4 and 10). One civil society participant in the FGCOP meetings voiced a concern that ‘when I come to the workshops ... I don’t necessary feel it’s a safe place. Because I know who’s fighting for funding or who wants to put this or that forward, that type of thing. So there are always motivations that are taking place and I don’t feel safe in that...’ (Interview 4). Another practitioner voiced their hesitation to talk because ‘I also noticed in the community of practice there is lot of older white men in those spaces and it’s this thing of society, that feeling of not having an adequate voice, like not being able to say it in the right way or being able to articulate it, so I guess you feel out of your depth’ (Interview 10).

Overt tension, and especially conflict between COP members, was rare, but not entirely absent in the FGCOP. One particular case of conflict erupted in a presentation by a research organisation on the governance implications of a mapping of formal and informal food outlets in an impoverished neighbourhood. The presenters were sharply challenged by an informal traders group. Neither organisation participated in the FGCOP again. Some FGCOP participants felt that academics were well placed to facilitate difficult discussions and that this was a role the FGCOP could develop further (Interview 10). Bäcklund and Mäntysalo (2010: 343) argue for the advantages of ‘embracing agonism’ through vehicles that allow one to present passionate views without being construed as an enemy. However, considerable facilitation skills are needed to adequately deal with these situations so that all voices are heard and that certain voices do not dominate the space and kill discussion for others.

Our experiences in the FGCOP show that power asymmetries, conflict and tensions abound in TCOPs, which contrasts somewhat from the traditional COP literature that argues that COP members are naturally ‘collegial, honest and respectful of each other’ (Li et al. 2009: 5) and develop relationships based on trust as ‘the foundation for mutual learning’ (Snyder and de Souza Briggs 2003: 9). In TCOPs, a diverse membership can lead to points of conflict which, instead of being unhelpful, are opportunities for conceptual and meta-learning because they result in ‘negotiated meaning’ (Wenger 2009b). These conflicts and tensions need to be acknowledged and made visible so that they in themselves become subject to deliberation and sense-making. In other words, ‘reflexivity on the part of all those involved is a necessity’ (Oswald 2016: 26). At the same time, facilitation skills and mechanisms are needed to accommodate these tensions without allowing them to entirely derail deliberations or repressing their expression. Also, the power of convenors acting as gatekeepers to who is in the room and in promoting a particular tone and format of deliberation must be acknowledged. Here, notions of polite, sensitive deliberation may override alternative, more conflictual and vocal ways of communicating, which may alienate certain groups and discourage their participation.

4.2 Lesson 2: recognise the additional challenge (and opportunity) of building a sense of identity

The COP literature tells us that building strong COPs involves nurturing a sense of identity amongst members (Cambridge et al. 2005). Learning in this context is, therefore, not just about acquiring knowledge and skills (learning about), it is about progressively adopting a common identity through a shared delineation of problems and vision of challenges (learning to be) (Brown and Duguid 2001: 200). Through their sustained interactions over time, a COP member becomes ‘a knower in a context where what it means to know is negotiated with respect to the regime of competence of a community’ (Wenger 2009b: 2). This emergence of identity is important in developing a sense of community, helps create the social fabric of learning and cements commitment to the learning partnership. In a traditional (intradisciplinary) COP, members may already have a shared identity through their work (Nickols 2003). However, building identity in TCOPs can be more challenging. Optimally, the membership mirrors the diversity of perspectives and approaches relevant to leading-edge innovation in the field and reflects the varied professional interests and demographic characteristics of practitioners (Snyder and de Souza Briggs 2003). COP members from specific sectors or disciplines may need to be actively recruited when they do not (yet) perceive that the issue at stake is part of their core mandate.

In the FGCOP, the secretariat sought out and recruited stakeholders from sectors beyond those associated with the traditional conception of food security (as mainly to do with agriculture and food-related activities). For example, food-sensitive planning had been identified in a previous provincial government strategy as an important (but opaque) potential component of food security locally so the FGCOP secretariat attempted to bring in representatives from the housing and planning sector as well as from informal trade and transport sectors. However, recruiting and maintaining these stakeholders was a challenge. Brown and Duguid (1991: 49) argue that ‘communities are emergent (...) their shape and membership emerges in the process of activity, as opposed to being created to carry out a task’. The affinity felt in a community must be sufficiently tight for members to understand one another. De La Rue (2008) suggests that this can be challenging if the members of a COP do not work on a similar level of generality that enables mutual understanding. If the practice is too broad, then the community will be too diffuse and the benefits and motivation less tangible: ‘there must be sufficient common ground to enable each member to say: “these are my people” or “I’m a member of this group”’ (De La Rue 2008: 23).

A shared discourse that appears to unite the FGCOP members (from the core and periphery) centres around the understanding that there was a problem with the food system which needed to be addressed (interviews 1, 4, 8). The social justice aspect of this shared identity emerged strongly for many of the FGCOP members who perceived that most people involved in the FGCOP shared a strong commitment to making a difference in the access of nutritious food for disadvantaged sections of the society (interviews 6, 13): ‘sometimes we don’t agree on the analysis of the problem but there is a shared understanding that there is a problem and that the food system is broken and that we need to do something about it. And I don’t think that outside of the room that this is something that people necessarily understand’ (Interview 11). This reflects a meta-narrative that suggests the need for fundamental structural transformation within the food system. It is possibly for this reason that large scale food corporations stayed away from the FGCOP meetings—from their perspective, there may be no compelling need for transformation.

In the COP literature, embarking on a joint endeavour by agreeing and committing to working towards collective objectives is reported to help bind members together as a community (Harvey et al. 2017; McDermott 2003; Wenger 2000). Even if members are talented and enjoy working together, if they cannot define a compelling learning agenda to address and do not have case problems to work on or tools they want to build together, then the community is unlikely to get traction (Snyder and de Souza Briggs 2003). Our experiences of the FGCOP support this as members expressed some concern about the ambiguity surrounding the purpose of the FGCOP (interviews 5, 10, 8, 13). One FGCOP member explained ‘[o]ne of the questions I ask myself when coming to COP is what is the role of FGCOP and what actually is the point...what am I contributing to?’ (interview 5). After 2 years, the FGCOP had reached a point where questions were being raised about whether it was ‘a community of discussion or a community of *practice*’ (interview 10). While the idea of constructing a local ‘Food Charter’ had been raised as a possible joint activity early on in the life of the FGCOP, this had been put on hold due to concerns of credibility and legitimacy. The subsequent lack of a focused joint activity (beyond the broad learning agenda of the FGCOP) made it hard to draw together as a community... ‘you can’t build a community if people feel that there’s not a common sense of why they are there’ (interview 8). At the same time, it was recognised that what people wanted from the FGCOP was ‘pretty diverse’ (Interview 8). As Harvey et al. (2017: 85) warns us, while gaining multiple

perspectives is rewarding, 'broad membership can pose challenges, such as.... becoming a forum for discussion without clear roles, responsibilities and action plans'.

Our experiences in the FGCOP show that there is a fine line between nurturing diversity in TCOPs while at the same time developing a shared identity and commitment to joint activities and a learning partnership. As Wenger (2009b) explains, if a COP too strongly identifies with itself, it may be closed or prone to group think, but if it becomes so fragmented and individualised (resembling a network), then developing its identity as a community is a good way to give it shape and endow it with an ability to project a collective intention and commitment to a learning partnership. It is also important not to obscure different real-world interests and so prevent contestation when building a sense of identity in TCOPs. The sense of identity should thus not be built on a particular normative or ideological position if that means that alternative views and positions are excluded, as that would limit the scope of divergent perspectives that inform knowledge co-production. Moreover, the deliberation on specific policy issues itself can constitute a sense of political purpose and identity (Hajer 2003), which emerges from a shared narrative and from the development of strategic coalitions (Leipold and Winkel 2016). This suggests that a shared sense of identity cannot be posited as a starting condition for social learning in a TCOP, nor that it should be manufactured through appropriate techniques and processes. Rather identity is an emergent property arising from the discursive processes of deliberation and coalition-building around specific issues in TCOPs.

4.3 Lesson 3: consider whose learning will be prioritised

While COPs have long been presented as sites for social learning to improve practice, the literature is ambiguous on how practice is developed or new knowledge is created (Fox 2000). Rather the idea of 'legitimate peripheral participation' was proposed by Lave and Wenger (1991). Membership in COPs is not uniform. Levels of participation differ, and the interaction between core, active, and peripheral group members can stimulate and help transfer learning (Harvey et al. 2007). The idea is that newcomers to a practice will interact with others who are already entrenched in the practice, and this interaction will lead to learning (Sethi 2017). The newcomers will soon be able to share their own thoughts and experiences, thereby further enabling knowledge sharing within the community (Sethi 2017). Learning therefore essentially involves becoming an insider as they orient themselves within the field of diverse perspectives and learn to speak its language (Brown and Duguid 2001).

In our experiences in the FGCOP, many of the student members silently lurked in the periphery of the group wanting to listen and learn rather than actively participate (interviews 6, 9, 13). In the words of one student FGCOP member: 'At the moment it feels like I am an observer and everyone else in the room probably knows a whole lot more than I do. So I feel like a bit of a sponge soaking up information' (interview 9). Other postgraduate student FGCOP members report feeling both very excited in the meetings and at the same time intimidated to speak up unless pressed (interviews 6 and 13). 'When I came into these meetings I was very overwhelmed as I knew that these people had been working in this field for probably forever and I was just being introduced to that space so there was not really the feeling that I would add value or that my opinion mattered' (Interview 13).

Over time, however, some of these student members appeared to move towards the centre of the FGCOP by learning to become 'an insider' through sustained interactions with the group. As one student FGCOP member explains:

I am beginning to feel more of a community of practice member ... Every single time I come I learn something new... For example when I heard X speak ...the next day I read her book and incorporated her views into my views and then I heard another speaker with another angle and it feels like I am building a castle and I am adding things to it so that I can have a well-informed opinion...because I am fresh in this space ...(interview 6).

As less experienced participants create an opinion and understand the topics from what they hear in the meetings, both their confidence and identification with the group grow. At the same time, the group's shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems—in short a shared practice—is developed through these sustained interactions (Wenger 2009a).

Encouraging legitimate peripheral participation is particularly important in TCOPs where the utility of the group is enhanced by the inclusion of multiple perspectives. However, in our experiences of the FGCOP, there is potentially a trade-off between encouraging legitimate peripheral participation and the co-production of new knowledge. For these student members of the FGCOP, as well as other stakeholders who were new to the food space both in government and CSOs, the broad range of topics covered and the generalised nature of the discussion in the meetings helped fast track their learning as this gave them a good overview of the governance landscape. This level of generality, however, left some (core) members feeling that the FGCOP 'has not gone deep enough and did not get its teeth stuck in a way which I thought it might, and I think it's because it's an exploring thingand no matter who you put around the table the conversation will be very generalized' (interview 5). So while the needs of the many periphery FGCOP members were initially prioritised, other more specialised topics where government officials were hoping for information and 'joint sense-making', such as Food Sensitive Planning, were not pushed forward. In response to this, the Secretariat suggested to the FGCOP members that sub-COPs to discuss these more specialised topics and then report back to the main FGCOP would be a way to combine both learning goals but, despite some initial enthusiasm, these subgroups have not (yet) self-generated. This was a missed opportunity for the co-production of knowledge because filling knowledge gaps was one of the original objectives of the FGCOP (Interview 8).

5. Conclusions

Traditional ways of doing science are rapidly changing under the belief that science has more chance of having an impact if stakeholders and potential users of the science are involved from an early stage of the research process. However, day-to-day science-policy interaction remains a challenge (Saarela 2019). Despite the increased interest in the co-production of knowledge as an approach for integrating knowledge from multiple stakeholders, there are relatively few empirical studies of how co-production works in practice (Oliver et al. 2019). This article builds on an emerging literature (e.g. Cundill et al. 2015; Vincent et al. 2018) exploring one particular theory of social learning (i.e. COPs) to enhance our understanding of the social dynamics occurring within knowledge co-production processes.

Although the FGCOP is referred to as a (T)COP in this article, it may arguably be viewed as a looser learning structure or 'third space' where the co-production of knowledge can potentially take place: an 'umbrella community', or even a network, that provides opportunities for emergent and self-organising COPs to form rather than a fully-fledged COP with a shared domain, identity and joint practice. As noted above, self-organising 'sub-COPs' did not form from the FGCOP perhaps indicating there was not enough common benefit to

the potential members in doing so or that these groups/meetings formed in other guises away from the FGCOP. In line with Wenger (2009b), however, rather than try to determine if the FGCOP is or is not a (T)COP, we have used the concept of (T)COPs to examine the structuring processes at play in this social learning space.

Our results highlight two areas of learning: first, in terms of lessons for fostering social learning in TCOPs and other ‘third spaces’ bringing scientists and stakeholders together; and secondly, the implications of the process of social learning in TCOPs on policy making and governance.

The following lessons for managers and participants engaged in transdisciplinary science and the co-production of knowledge can be drawn from our experiences in the FGCOP: 1) power relations within a ‘collaborative’ group are not necessarily neutral. Asymmetries of power can affect whose perspective counts in the process of mutual sense making and power imbalances must be actively sought out and made explicit in deliberations in an attempt to mitigate them. One way to do this is to explicitly reflect on the power asymmetries in the group discussions; 2) although a sense of identity is thought to be important for developing a commitment to the learning partnership, building a strong sense of identity amongst diverse members can be particularly challenging and slightly counter-intuitive: identity is important but it can emerge from ongoing discursive engagement between the members rather than something that needs to be manufactured through technical means. In other words, the process of social learning can actually help build identity rather than identity being a starting condition for social learning. (3) Different types of learning by various groups within the COP are possible but these may not always be compatible. Therefore, a balance may need to be struck between developing a shared discourse and practice (moving knowledge from the core to the periphery) and the co-production of new knowledge at the cutting edge of the domain.

Furthermore, our research indicates important policy implications of nurturing social learning processes in ‘third spaces’ such as TCOPs. The most beneficial legacy of a TCOP may not be the co-produced knowledge output *per se* but rather the social learning outcome in the form of a cohesive group of stakeholders with a new and shared way of knowing and a growing identity with a shared domain. Through better understanding, different perspectives and rationalities TCOP members are able to develop reflexivity and an ability to take on board perspectives other than their own. The utility of this awareness and rapport between different stakeholders became apparent when the FGCOP was able to help mobilise stakeholders and knowledge resources to navigate the rapidly changing and uncertain governance landscape during the Corona Virus Disease 19 (COVID-19) pandemic. In addition, during the lifetime of the FGCOP, previously defensive stakeholders, both inside and outside of government, have come together in this and other (interlinked) local stakeholder forums working on food-related issues. It is not possible to say to what extent the creation of these forums was influenced by the FGCOP, but reflexivity and shared way of knowing or ‘meta-learning’ (i.e. learning to learn) is a key governance capability for dealing with complex and ambiguous social problems (Termeer et al. 2013). In this way, TCOPs can foster social learning not only for the co-production of knowledge for solving wicked policy problems but also help transform learning and ways of knowing necessary for the emergence of novel governance arrangements (Leipold and Winkel 2016).

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List of interviews

Interview 1: Private sector stakeholder, 27 November 2019, Cape Town

Interview 2: Union representative, 2 December 2019, Cape Town

Interview 3; Provincial government official, 3 December, Cape Town

Interview 4: Independent food campaigner, 5 December, Cape Town

Interview 5: Practitioner, 5 December, Cape Town

Interview 6: Postgraduate student, 9 December, 2019

Interview 7: Independent food campaigner, 10 December 2019, Cape Town

Interview 8: Provincial government officials (*2 people), 11 December 2019, Cape Town

Interview 9: Postgraduate student, 11 December, Cape Town

Interview 10: Practitioner, 11 December 2019, Cape Town

Interview 11: NGOs representatives (*2 people), 13 December, Cape Town

Interview 12: Provincial government official, 13 February 2020, Cape Town

Interview 13: Postgraduate student, 17 February 2020, Cape Town.

Notes

¹The government official that first suggested the formation of the COP is one of the article's authors but is not part of the COP Secretariat (as the other authors are).

²The format of the FGCOP meetings changed in March 2020 when South Africa entered into one of the strictest lock downs around the world in response to the Covid-19 pandemic. The FGCOP quickly adapted its activities to respond to this changing context. Meetings took place online at least once a month to discuss the immediate knowledge needs of stakeholders attempting to address the acute food security crisis that unfolded. FGCOP members remained active in these meetings but were joined by many more new participants.

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